



THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Shenggao Liu et al.

Application No.: 10/622,046

Filed: July 16, 2003

For: HETEROATOM-CONTAINING  
DIAMONDOID TRANSISTORS

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) Group Art Unit: 2811  
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) Examiner: Nadav, Ori  
)  
) Confirmation No.: 2268  
)  
)

**RESPONSE TO RESTRICTION REQUIREMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In complete response to the Office Action dated March 24, 2005, Applicants submit herewith a one month extension of time extending the period for response from April 24, 2005 to May 24, 2005 and the following response.

In the Office Action, the Examiner sets forth a restriction requirement between two groups of claims as follows:

**Group I:** Claims 1-34 and 39-42, drawn to a semiconductor device, classified in class 257, subclass 77; and

**Group II:** Claims 35-38, drawn to a process of making a semiconductor device, classified in class 438, subclasses 22+.

Applicants respectfully assert that the inventions of Group I and Group II should properly be examined together. The invention of Group I is directed to a semiconductor device and the invention of Group II is directed to a process of making a semiconductor device. Therefore, the inventions of Group I and Group II are closely related.

The Examiner contends that the inventions of Group I and Group II are patentably distinct because one or more can be shown: (1) the process as claimed can

be used to make other and materially different products; (2) the product as claimed can be made by another and materially different process. (MPEP § 806.05(f).

Applicants submit that the inventions of Groups I and II are closely related and that a proper search of any of the claims should, by necessity, require a proper search of the others. Thus, Applicants submit that all of the claims can be searched simultaneously, and that a duplicative search, with possibly inconsistent results, may occur if the restriction requirement is maintained.

Applicants submit that any nominal burden placed upon the Examiner to search accordingly to determine the art relevant to Applicants' overall invention is significantly outweighed by the public's interest in not having to obtain and study many separate patents in order to have available all of the issued patent claims covering Applicants' invention. The alternative is to proceed with the filing of multiple applications, each consisting of generally the same disclosure, and each being subjected to essentially the same search, perhaps by different Examiners on different occasions. This process would place an unnecessary burden on both the Patent and Trademark Office and on the Applicants.

Regardless of whether the two inventions are independent or distinct, Applicants respectfully assert that the Examiner need not have restricted the application. MPEP § 803 requires that "[i]f the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to independent or distinct inventions." Therefore, it is not mandatory to make a restriction requirement in all situations where it would be deemed proper.

In the interest of economy, for the Office, for the public-at-large, and for Applicants, reconsideration and withdrawal of the restriction requirement are requested.

Nevertheless, in order to comply with the requirements of 37 C.F.R. § 1.143, Applicants provisionally elect, with traverse, to prosecute the invention of Group I, namely claims 1-34 and 39-42, for prosecution in the above-identified application.

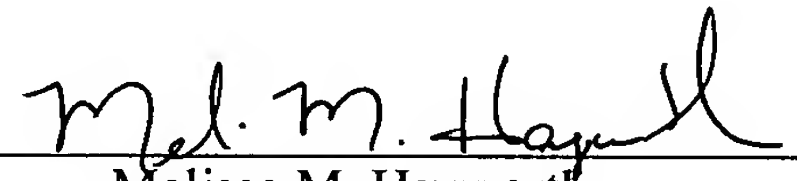
Applicants have no intention of abandoning any non-elected subject matter and expressly reserves the right to file one or more continuation and/or divisional applications directed to the non-elected subject matter.

Applicants earnestly solicit favorable consideration of the above response and early passage to issue of the present application. In the event that there are any questions relating to this application or this response, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

In the event any further fees are due to maintain pendency of this application, the Examiner is authorized to charge such fees to Deposit Account No. 02-4800.

Respectfully submitted,

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Dated: May 24, 2005